

# Toronto Sewer Use By-law

Robert Krauel - Environment Canada

Based on Information Provided by

Martin Shaw - City of Toronto



# Background - Timeframe

- 1998 - City Board of Health -Examine regulations to prevent dental waste entering sewer
- Late 1990s ODA Best Practices manual
- ISO 11143 standard - late 1999
- Amalgamation - uniform by-law for new City of Toronto
- July 6, 2000 - Council enacts sewer use by-law
- September,2001 - Canada Wide Standard

# Sewer Use By-Law

- Dental Offices required to submit pollution prevention plan by December 31, 2001
- Install and maintain a dental waste amalgam separator (type not specified) by January 1 2002
- Maximum mercury discharge concentration of 0.01mg/L effective June 30,2002 ( extended to November 1, 2002 )

# Approach

- Discharge standard rather than equipment based standard
- Pollution prevention plan

# Pollution Prevention Plan

## Challenges

- large number of dental practices (approx. 1500)
- simplifying the process

## Development of Standard Form

# Pollution Prevention Plan

Information Requirements include:

- type of separator
- frequency of servicing
- plumbing connections
- handling of waste from separator
- amalgam preparation
- storage, handling, disposal of scrap amalgam

# Discharge Based vs Equipment Based Standard

## Arguments for Equipment Based

- easier for dentists to determine what type of separator is acceptable
- concentration limit - requires sampling by both city and dentist
- practicality of testing questioned - large number of variables

# Discharge Based vs Equipment Based Standard

Arguments for discharge based

- non prescriptive - greater flexibility on how to meet standard
- some equipment manufacturers modified separators to meet standard
- equipment based standard does not ensure that all amalgam bearing pipes and drains are connected to the separator

# Progress

## Toronto Biosolids(mg/kg dry weight)

Month	Highland Crk.	Humber	Ashbridges Bay	N. Toronto
<b>Avg. 2001</b>	<b>1.38</b>	<b>3.47</b>	<b>2.32</b>	<b>3.24</b>
Jan. 2002	0.75	1.15	0.75	1.68
Feb.	1.1	1.0	1.6	1.3
Mar.	0.6	1.2	1.45	2.33
April	0.5	0.5	0.8	2.7
May	0.3	0.7	1.15	1.31
June	0.4	2.0	1.5	2.3
<b>Avg. 2002</b>	<b>0.61</b>	<b>1.09</b>	<b>1.20</b>	<b>1.94</b>

# Further Issues

- Historic contamination in plumbing and drains  
- remediation strategies require further research
- ultimate disposal of scrap plumbing

# Some Observations

- All parties became fully engaged in the process
  - Forced everyone to work through the details
  - resulted in better analysis and understanding (eg. UofT study)
  - equipment suppliers provided a better product/service - a competitive market
  - dental community made serious and conscientious effort to comply
  - influenced approach in other jurisdictions (eg CWS)
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# Contact

For Further Information:

Martin Shaw - City of Toronto  
(416) 392-9932

[martin\\_shaw@toronto.ca](mailto:martin_shaw@toronto.ca)

